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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,907	12/01/2003	John R. Seiver	34116US (KDK)	3296

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Richmond, Hitchcock, Fish & Dollar
PO Box 2243
Bartlesville, OK 74005

EXAMINER

KAPLAN, HAL IRA

ART UNIT	PAPER NUMBER
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2836

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/724,907

Applicant(s)

SEIVER, JOHN R.

Examiner

Hal I. Kaplan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20, 22-24 and 26-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20, 22-24 and 26-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. 20061130
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

The Examiner would like to thank the Applicants for their time and courtesies extended during the in-person interview of November 30, 2006. In the interview, the objection to claims 6, 9, 12, 15, 16, 21, 30, and 32 in the Office Action of October 10, 2006, for incorrect calculations was overcome, and agreement was reached that the proposed amendments would overcome the rejections presented in the same Office Action, pending an updated search.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 23, 24, 26, 28, 29, 34, 35, and 40-42 are rejected under 35 U.S.C. 102(e) as being anticipated by the US patent application publication of Pan et al. (2004/0158772).

As to claims 1 and 26, Pan, drawn to value-based transmission asset maintenance management of electric power networks, discloses an electrical power system comprising: a plurality of generators (10a-10c); a plurality of loads (L1-L4) that when summed, determine the total power consumed (if distribution losses are ignored). The generators in combination with the transformers (15a-15c) are producing a voltage

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used by all of the loads. All of the loads use the same voltage since they are connected to the same bus bar (50t-50v); thus, the power produced is the voltage level of all of the loads and thus of the largest load; and a bus (50t-50v) electrically connecting each of the generators with each of the loads, wherein the bus is rated at less than the total power consumed (load shedding occurs) but carries all of the total power consumed from the generators to the loads without overloading the bus, because, due to predefined current limits, certain loads cannot be supplied when the system is undergoing maintenance, and thus load shedding will occur, which prevents the bus from overloading (see paragraph 35, lines 1-13; paragraph 36, lines 1-7; and Figure 1). In normal operation, power is directed from the generators to the loads without overloading the bus.

As to claims 2-5, 29, and 40, each generator and each load is connected to a different point along the bus such that the total power consumed does not flow through any one point of the bus and is distributed without overloading the bus (see Figure 1).

As to claim 28, a largest one of the loads (L1-L4) is connected directly to the bus without a transformer therebetween (see Figure 1).

As to claims 23, 24, 34, 35, and 42, the bus includes a current limiter (35r-35s, 40r-40s) electrically connected between the generators and the loads, thereby allowing the generators to share the loads while preventing a short circuit current rating of the bus from being exceeded (see Figure 1).

As to claim 41, the connections of the generators and motors (loads) must be connected to the bus in compliance with Kirchhoff's current law.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 6-20, 22, and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pan.

As to claims 6-20, 22, and 30-33, Pan discloses all of the claimed features, as set forth above, except for the claimed values of voltages, currents, and power ratings. However, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have used the claimed voltage, current, and power rating values because selection of operational levels for an electronic system is an engineering decision based upon the system's intended use and the expected requirements of the other systems with which the system will interface. See MPEP §2144.04 IV(A).

In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that,

where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device, and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

6. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pan in view of the international patent application publication of Boenig (WO 98/09359).

As to claim 27, Pan discloses all of the claimed features, as set forth above, except for each generator being connected directly to the bus without a transformer therebetween. Boenig discloses generators (12,15) connected directly to a bus (11) without transformers therebetween (see Figure 1). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have built the system of Pan without transformers, or with converters other than transformers, to reduce the size and complexity of the system.

7. Claims 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pan in view of the US patent of Reijnen et al. (6,658,891).

As to claim 36, Pan discloses all of the claimed features, as set forth above, except for the claimed liquefied natural gas (LNG) facility. Reijnen, drawn to an offshore plant for liquefying natural gas, discloses a LNG facility comprising a plurality of compressors (65-67) to compress one or more refrigerants; a plurality of electric motors (83a,83b,113a,113b) to drive the compressors (65-67), wherein each motor contributes to the total power consumed and consumes power at a voltage level (see column 2, lines 17-18 and 49-52; column 3, lines 1-5; and column 4, lines 16-20). It would have

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been obvious to one of ordinary skill in the art, at the time of the invention, to use the system of Pan to run the LNG facility of Reijnen, in order to produce more reliable power for the LNG facility.

As to claim 37, Pan discloses all of the claimed features, as set forth above, except for the claimed values of voltages, currents, and power ratings. However, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have used the claimed voltage, current, and power rating values because selection of operational levels for an electronic system is an engineering decision based upon the system's intended use and the expected requirements of the other systems with which the system will interface. See MPEP §2144.04 IV(A).

As to claim 38, Reijnen discloses a plurality of turbines fired by the natural gas to drive the generators (see column 1, lines 56-60).

As to claim 39, the bus of Pan includes a current limiter (35r-35s, 40r-40s) electrically connected between the generators and the loads, thereby allowing the generators to share the loads while preventing a short circuit current rating of the bus from being exceeded (see Figure 1).

Response to Arguments

8. Applicant's arguments, see Remarks, filed January 10, 2007, with respect to the objections have been fully considered and are persuasive. The objections have been withdrawn. The objection to and rejection of claim 21 are moot in view of the cancellation of claim 21.

9. Applicant's arguments with respect to claims 1-20, 22-24, and 26-42 have been considered but are moot in view of the new ground(s) of rejection.

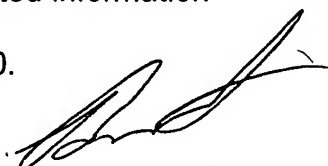
Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The US patent to Jones, Jr. et al. (7,114,351), and the US patent application publications of Divan et al. (2005/0073200) and Vergnat et al. (2005/0099746) disclose similar systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal I. Kaplan whose telephone number is 571-272-8587. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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